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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/657,690	09/08/2003	Robert J. Leach	1400-44 (1591)	1260

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David M. Carter, Esq.
Carter, DeLuca, Farrell & Schmidt, LLP
Suite 225
445 Broad Hollow Road
Melville, NY 11747

EXAMINER

LEE, SEUNG H

ART UNIT	PAPER NUMBER
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2876

DATE MAILED: 05/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/657,690

Applicant(s)

LEACH, ROBERT J. 

Examiner

Seung H. Lee

Art Unit

2876

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 22 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-19 is/are allowed.
- 6) ☒ Claim(s) 20 and 21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 04/01/2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Prelim. Amdt./Amendment

1. Receipt is acknowledged of the Preliminary Amendment filed on 11 April 2005

Information Disclosure Statement

2. The information disclosure statement filed 01 April 2005 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

The copy of International Search Report was not filed with the IDS. Please submit the copy of the International Search Report in next communication.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe (US 6,384,579) in view of Pollock et al. (US 6,037,740)(hereinafter referred to as 'Pollock').

Watanabe teaches a resonant circuitry comprising a first winding or primary winding (6A) having a terminal connected to an inverter controller (13) serving as a coil drive circuit for receiving signal, a switch (18) having a first terminal connected to the second winding (6B) and a second terminal connected to the voltage comparator (11) serving as a control circuit via the pulse-generator (62) for receiving a switching signal therefrom, the first winding and the second winding are located adjacent to the transformer (6), wherein the circuitry includes an amplifier (63) for providing a predicted signal (V_d') or a feedback signal to the control circuit or the voltage comparator (see Fig. 10; col. 17, line 20- col. 19, line 48).

However, Watanabe fails to particularly teach or fairly suggest that the resonant circuitry comprises a resonant motor.

Pollock teaches a switched reluctance machine having rotors (R) wherein the machine serves as a resonant motor comprising coils (2 and 3) and switch (12') connected to the second coil (3) wherein the machine can be operated as a motor according to the value of the switches (12 and 12') (see figs. 1-5; col. 4, line 29-col. 9, line 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to realize that the well-known transformer of Watanabe can be used as a motor as suggested by Pollock by replacing the transformer of the Watanabe with the rotors of Pollock in order to maintain the voltage and/or current level at predetermined level in which ensures the proper operation of the motor.

Allowable Subject Matter

5. Claims 1-19 are allowed.
6. The following is an examiner's statement of reasons for allowance:

Although, the best prior art of record to Watanabe and Pollack teaches the resonant motor comprising a first winding, a second winding, a switch, and a plurality of circuits for operating the resonant circuitry such as a motor. However, Watanabe and Pollack taken alone or in combination of other references, fail to specifically teach or fairly suggest that a drive circuit and a method for operating a resonant motor comprises a control circuit connected to a coil drive circuit and a switch wherein the switch for switching the first and the second state, the control circuit provides a control signal to the coil circuit in response to the feedback signal from the resonant motor wherein the voltage value of the feedback signal varies when the switch is in the first state and the voltage of the feedback signal is held substantially constant when the switch is in the second state, and/or the optical code reader comprising aforementioned resonant motor therein for scanning the optical code as set forth in the claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Mazz et al. (US 5,266,787) discloses a laser scanner having a dual motor speed control means,


Rudeen (US 5,50,364) discloses an optical reader comprising a stepper motor,

Fukuyama et al. (US 6,259,179) discloses a magnetic bearing system comprising a rotor and coils.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Seung H. Lee whose telephone number is (571) 272-2401. The examiner can normally be reached on Monday-Friday, 7:30 AM- 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on (571) 272-2398. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Seung H. Lee
Art Unit 2876
April 25, 2005